

IN THE SPECIFICATION:

Replace the title with the following new title:

--Water Desalination Process Using Ion Selective Membranes--.

IN THE FIGURES:

Replace Figure 1 with amended Figure 1.

Replace Figure 2 with amended Figure 2.


IN THE CLAIMS:

Cancel claims 19-23.

Replace claims 1, 2, 9, 10, 12-16 and 24-26 as originally filed with amended claims 1, 2, 9, 10, 12-16 and 24-26 as follows:

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1. (Amended) A desalination process to produce potable water which comprises:
- (a) passing a first stream of water containing a high concentration of hardness ions through an ion selective membrane to form a softened water having a reduced content of hardness ions;
 - (b) blending the softened water with a second stream of water containing a higher concentration of hardness ions than the softened water to form a feed to a desalination system; and
 - (c) introducing the feed to the desalination system to form a water product of potable quality, wherein the proportions of the softened and second stream of water forming the feed to the desalination system are varied to increase the top operating temperature of the system and increase recovery of potable water.
2. (Amended) The desalination process according to claim 1, wherein the softened water content of the feed is at least 5%.
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3. (Not amended herein) The desalination process according to claim 1, wherein the feed is passed through at least one desalination system selected from the group consisting of reverse osmosis, multistage flash distillation, multieffect distillation and vapor compression distillation.
4. (Not amended herein) The desalination process according to claim 3, wherein the desalination system is thermal driven and selected from the group consisting of multistage flash distillation and multieffect distillation.
5. (Not amended herein) The desalination process according to claim 3, wherein the desalination system is electric driven and selected from the group consisting of reverse osmosis and vapor compression distillation.
6. (Not amended herein) The desalination process according to claim 3, wherein the desalination system is multistage flash distillation.
7. (Not amended herein) The desalination process according to claim 6, wherein the multistage flash distillation system is operated at a temperature of 95-180°C.
8. (Not amended herein) The desalination process according to claim 1 or 6, wherein the ion selective membrane is a nanofiltration membrane.

 9. (Amended) The desalination process according to claim 8, wherein the first stream of water is subjected to a deaeration pre-treatment step after passing through a softening system comprised of one or more nanofiltration membranes.

10. (Amended) The desalination process according to claim 9, wherein the first stream of water is pre-heated by the heat of a reject stream of the desalination system before deaeration.

11. (Not amended herein) The desalination process according to any one of claims 1 or 4-7, wherein the ion selective membrane is operated at a variable pressure of 5-80 bar.

12. (Amended) The desalination process according to claim 11, wherein the ionic content and quantity of softened water varies with the operating pressure of the ion selective membrane.

13. (Amended) The desalination process according to claim 1, wherein the softened water is stored in a buffer system.

14. (Amended) The desalination process according to claim 13, wherein the softened water stored in the buffer system is blended with the second stream of water to form the feed to the desalination system.

15. (Amended) The desalination process according to claim 13, wherein the softened water stored in the buffer system is injected into the desalination system.

16. (Amended) The desalination process according to claim 1, wherein the softened water is fed by a cluster system to two or more desalination systems and blended with the second stream of each system.

17. (Not amended herein) The desalination process according to claim 1, wherein the desalination system produces brine containing water selected from the group consisting of reject, blowdown and recycled brine which is partially subjected to a nanofiltration step and recycled through the desalination system.

18. (Not amended herein) The desalination process according to claim 1, wherein a stoichiometric amount of acid is added to the first stream before that stream passes through the ion selective membrane.

24. (Amended) A desalination process which comprises:

(a) blending a first stream of softened water having a substantially reduced concentration of hardness ions with a second stream of water containing a higher concentration of hardness ions than the softened water to form a feed to a desalination system, and

(b) passing the feed through the desalination system to form a water product of potable quality, wherein the proportions of the softened and second stream of water forming the feed to the desalination system are varied to increase the top operating temperature of the system and increase recovery of potable water.

25. (Amended) The desalination process of claim 24, wherein the stream of softened water is obtained by passing untreated water across an ion selective membrane to reduce the ionic content of the first stream.

26. (Amended) The desalination process of claim 24, wherein the first stream of water is produced by the desalination system, and wherein the water is selected from the group consisting of reject, blowdown and recycled brine.